

**Notice of Allowability**

Application No.

10/790,178

Examiner

James J. Leybourne

Applicant(s)

MORIYAMA ET AL.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment received March 30, 2006.
2. ☒ The allowed claim(s) is/are 1,2 and 5-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### **DETAILED ACTION**

1. According to the "Amendment" received March 30, 2006, claims 1, 2, 5-7, 10 and 15-17 have been amended; claims 3 and 4 have been canceled; and claim 19 has been added.

### ***Response to Arguments***

2. Applicant's Remarks received March 30, 2006 have been fully considered and are persuasive.

### ***Allowable Subject Matter***

3. Claims 1, 2 and 5-19 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to independent claims 1, 2 and 5-7 the prior art fails to disclose or make obvious a particle beam therapy system comprising:

- Two manual input signals in each treatment room or corresponding control room with the first manual input generating an irradiation ready signal and the second manual input generating a patient ready signal.

- An emission start control unit that determines and controls the sequence of introduction of the beam to the treatment rooms based on the two manual input signals from each of the treatment rooms.

Claims 8, and 11 are allowed by virtue of their dependency on claim 1.

Claims 9, and 12 are allowed by virtue of their dependency on claim 2.

Claim 15 is allowed by virtue of its dependency on claim 5.

Claim 16 is allowed by virtue of its dependency on claim 6.

Claims 10, 13, 14 and 17 are allowed by virtue of their dependency on claim 7.

With respect to independent claim 19 the prior art fails to disclose or make obvious a method for irradiating a charged particle beam to a patient in selected one of a plurality of treatment rooms, whereby the priority for selecting the order of the plurality of treatment rooms is determined by the order in which respective irradiation ready signals corresponding to said treatment rooms have been generated by first manual input devices and outputting an emission start signal based on an irradiation start signal generated by a second manual input device corresponding to the treatment room.

#### ***Relevant Prior Art***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to show further show the state of the art with respect to particle beam therapy system beam switching.

US 2006/0027766 to Matsuda et al.

US 2006/0022152 to Natori et al.

USPN 7,012,267 to Moriyama et al.

### ***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Leybourne whose telephone number is 571 262-2478. The examiner can normally be reached on M\_F 10:00AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 10, 2006

JJL



NIKITA WELLS  
PRIMARY EXAMINER

11/13/06